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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,980	12/19/2001	Dong-Woo Kim	678-766 (P9755)	4825
28249	7590	12/01/2004	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			CHO, UN C	
			ART UNIT	PAPER NUMBER
			2687	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,980

Applicant(s)

KIM, DONG-WOO

Examiner

Un C Cho

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang (US 6,625,282) in view of Pralus et al. (US 6,055,312).

Regarding claim 1, Liang teaches a wireless headset (Fig. 1, 40) with a blue tooth-based transceiver (not shown) comprising: a microphone supporting member having a microphone (Fig. 1, 42) installed therein and a connector for connecting the microphone supporting member to a main body of the wireless headset. Inherently a controller (not shown), within the headset, is connected to control the activation key (Fig. 1, 43) and the blue tooth-based transceiver and establishing a link between the wireless headset and a controller unit (Fig. 1, 20) registered in the wireless headset using the blue tooth-based transceiver (Liang, Col. 3, lines 66 through Col 4, lines 1 – 12). However, Liang fails to teach that the microphone-supporting member can be folded or unfolded from the main body of the wireless headset and a sensing device for determining whether the microphone-supporting member is folded or unfolded. In contrast, Pralus teaches a microphone (Fig. 1, 18) attached to a supporting member (Fig. 1, 70) which can

be rotated around the supporting member and the rotation of the microphone could be used for line connection being able to cause passage from the "OFF" position to the "ON" position (Pralus, Col 6, lines 6 – 15) and inherently a sensing device is incorporated within the headset. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Pralus to Liang to provide a telephone handset, transformable into a telephone headset that does not require the telephone handset to be held in the hand and providing a high level of listening and transmission convenience.

Regarding claim 11, the claim is interpreted and rejected for the same reason as set forth in claim 1.

3. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang in view of Pralus as applied to claim 1 above, and further in view of Sung (US 2002/0071586).

Regarding claim 2, Liang as modified by Pralus teaches the microphone (Fig. 1, 42) is attached to the wireless headset (Fig. 1, 40) (Liang, Col 3, line 41). However, Liang as modified by Pralus fails to teach that the microphone-supporting member is attached to the main body in a hinge structure. In contrast, Sung teaches the microphone (Fig. 1, 2) supporting streamline bar (Fig. 1, 32) is attached to the earplug (Fig. 1, 1) streamline bar (Fig. 1, 31) in a pivotal structure (Fig. 1, 33 and 34). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Sung to

Liang and Pralus to provide an improved structure of earphone with excellent quality of communication, and being small, light and easy for storage.

Regarding claim 4, the claim is interpreted and rejected for the same reason as set forth in claim 2.

4. Claims 3, 5 - 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang in view of Pralus and Sung and Specification of the Bluetooth System v1.0B, December 1st 1999 (hereto referred as Bluetooth Specification v1.0B).

Regarding claim 3, Liang as modified by Pralus and Sung teaches a microphone supporting member having a microphone installed therein and being able to be folded to or unfolded from the a main body of the wireless headset; a sensing device for determining whether the microphone supporting member is in a "On" or "Off" position; and inherently a controller connected to the activation key and the blue tooth-based transceiver (Liang, Col. 3, lines 66 through Col 4, lines 1 – 12; Pralus, Col 6, lines 6 – 15; Sung, Figure 1, 1, 2, 31 – 34) . However, Liang as modified by Pralus and Sung fails to teach the Bluetooth module for registering an ID (identification) of the wireless headset in a counterpart terminal through the Bluetooth module if it is determined that the microphone supporting member is unfolded. In contrast, Bluetooth Specification v1.0B teaches Bluetooth module for registering Bluetooth device address of the device in a counterpart device through the Bluetooth module (Bluetooth Specification v1.0B, User Interface aspects, Page 25). Therefore it would have been obvious to one of

ordinary skill in the art at the time the invention was made to provide the teaching of Bluetooth Specification v1.0B to Liang, Pralus and Sung to provide an improved structure of earphone being small, light and easy for storage with excellent quality of communication, compatibility and flexibility to adapt to many devices having the same type of technology.

Regarding claim 5, Liang as modified by Pralus and Sung teaches a microphone-supporting member having a microphone installed therein and being able to be folded to or unfolded from a main body of the wireless headset, and a sensing device for detecting whether the microphone-supporting member is in a "On" or "Off" position (Liang, Col. 3, lines 66 through Col 4, lines 1 – 12; Pralus, Col 6, lines 6 – 15; Sung, Figure 1, 1, 2, 31 – 34). However, Liang as modified by Pralus and Sung fails to teach attempting by the wireless headset to establish a link between the wireless headset and a master terminal registering therein an ID of the wireless headset and connecting by the master terminal the link in response to the link connection attempt by the wireless headset. In contrast, Bluetooth Specification v1.0B teaches attempting by the slave device to establish a link between two devices registering therein an address of the slave device and connecting with the master device the link in response to the link connection attempt by the slave device (Bluetooth Specification v1.0B, User Interface aspects, Page 25, Idle mode procedures, Page 42 – 47 and Establishment procedures, Page 50 - 51). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching

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of Bluetooth System v1.0B to Liang, Pralus and Sung to provide an improved structure of earphone being small, light and easy for storage with excellent quality of communication, compatibility and flexibility to adapt to many devices having the same type of technology.

Regarding claim 6, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 7, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 8, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 9, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 10, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Response to Arguments

5. Applicant's arguments filed 7/19/2004 have been fully considered but they are not persuasive.

The applicant argued that the present application is directed to a wireless headset with a Bluetooth module which includes a sensing device configured to automatically sense a folded and unfolded position of a microphone supporting member relative to a main body of the headset. The applicant also argued that

Liang (main reference) does not teach a wireless headset having a controller that is connected to the sensing device to automatically determine the folded and unfolded position of the headset. Moreover, the applicant argued that Pralus (secondary reference) fails to remedy the deficiencies of Liang as to the sensing device for determining whether the microphone-supporting member is folded or unfolded.

The examiner disagrees to the argument presented by the applicant and the reasoning is as follows:

Liang clearly discloses a wireless headset (Fig. 1, 40, Liang, Col. 2, lines 27 – 29) having Bluetooth transceiver arranged inside a casing (a controller is not mentioned in the specification of Liang because is obvious to one of ordinary skill in the art that a controller must be connected to the Bluetooth transceiver, activation key, microphone and power in order to make the headset function properly, Liang, Col. 3, lines 30 – 35). However, the examiner recognized that Liang failed to teach sensing whether the microphone-supporting member is folded or unfolded. In an analogous art, Pralus teaches a cordless telephone handset (Fig. 1a and 1b) having a microphone (Fig. 1a, 18) that pivots about a spindle (Fig. 1a, 37) and moving the microphone from one position to another performs an action accordingly such as turning the line connection ON or OFF (for the microphone to activate the line ON or OFF, the spindle obviously has to be connected to a switch that senses the state of the microphone's position and to a controller to activate the handset according to the switch and since this

telephone handset is wireless it must have a transceiver connected to the controller as well, Pralus, Col. 6, lines 6 – 15). Therefore, Liang in view of Pralus does teach all the limitations claimed in claims 1 and 11.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C Cho whose telephone number is (703) 305-8725. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (703) 306-3016. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Un C Cho
Examiner
Art Unit 2687

11/15/2004 UC

[Signature]
11/24/04
LESTER G. KINCAID
PRIMARY EXAMINER